

CLAIMS

1. A broadcast network access-management system comprising at least one master decoding device provided with a smart card, and at least one slave decoding device linked to it, and a transmitter device which generates and transmits entitlement management messages intended for the linked master and slave decoding devices and other devices characterised in that the master decoding device (11) and at least one slave decoding device (12) linked together are located in a defined distance and operate when a distance between them does not exceed the defined distance dependant upon a cable length, a configuration, a number and a quality of splitters and connections.
2. The broadcast network access-management system, according to claim 1, in which a decoding device is assigned the status of the master decoding device (11) only after it has been linked to a network and an entitlement control message for the master decoding device (11) has been found.
3. The broadcast network access-management system, according to claim 1, in which the master decoding device (11) imposes on the transmitter device (3) a transmission of the entitlement control message appropriate for the master decoding device (11).
4. The broadcast network access-management system, according to claim 1, in which a decoding device is granted with a mode of the slave decoding device (12) only after it has been linked to a network and an entitlement control message for the slave decoding device (12) has been found.
5. The broadcast network access-management system, according to claim 1, in which the slave decoding device (12) imposes on the transmitter device (3) a transmission of the entitlement control message appropriate for the slave decoding device (12).

6. The broadcast network access-management system, according to claim 1, in which the master decoding device (11) and the slave decoding device (12), when they are turned on, first check if any messages are being transmitted by other devices before they start to transmit messages.
7. The broadcast network access-management system, according to claim 1, in which the slave decoding device (12) triggers the master decoding device (11) to transmit the entitlement control message appropriate for the slave decoding device (12) and messages with demand for coupling.
8. The broadcast network access-management system, according to claim 1, in which a period of time for coupling the master decoding device (11) with the slave decoding device (12) is pre-set.
9. The broadcast network access-management system, according to claim 1, in which the defined distance between the master decoding device (11) and the slave decoding device (12) linked to it is determined from the level of a signal exchanged between the master decoding device (11) and the slave decoding device (12).
10. The broadcast network access-management system, according to claim 1, in which the level of the signal exchanged between the master decoding device (11) and the slave decoding device (12) is compared with the level of the signal sent between them during preceding communication.
11. The broadcast network access-management system, according to claim 1, in which decoding devices are assigned the status of the master decoding device (11) and the slave decoding device (12) after transmission of encoded messages by the transmitter device (3) generating and transmitting specified codes.

12. The broadcast network access-management system, according to claim 1, in which a private television network (13) shares physical linkages with a broadcast network (3).

13. The broadcast network access-management system, according to claim 1, in which the entitlement management messages, allowing the master decoding device (11) and at least one slave decoding device (12) an access to the broadcast network, are transmitted after the encoded messages are sent by the transmitter device (3) which is designed to generate and transmit specific codes.

14. The broadcast network access-management system, according to claim 1, in which management messages sent to the master decoding device (11) and the slave decoding device (12) are generated by a generator (7) connected to a multiplexer (5) through another generator (6) which creates messages, and the management messages sent to the master decoding device (11) and the slave decoding device (12) are included in the entitlement management message.

15. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages used to identify the master decoding device (11) and the slave decoding devices (12, 15), systems that are their component parts, or external devices (267) linked to them.

16. The broadcast network access-management system, according to claim 1, in which the identifying messages include a type of the master decoding device (11) and the slave decoding devices (12, 15), their version and/or their serial number.

17. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages used to identify software.

18. The broadcast network access-management system, according to claim 1, in which the messages used to identify software include a version number and/or a serial number of the software.

19. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages facilitating interaction between the decoding devices (11, 12, 15), systems integral to them, or between software installed in the decoding devices (11, 12, 15) or devices co-operating with them.

20. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages which incorporate an operating status of a given device/program, a result of a certain operation, an order to execute a certain operation and data collected or processed by a certain device/software.

21. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages generated either within the decoding devices (11, 12, 15) or delivered from external sources.

22. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are internet data, text messages, streams and files containing sound, pictures, video and software, and/or updates of software.

23. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) contain additional messages generated by software installed in the decoding device or devices which are co-operating with them, or the messages which are delivered to the decoding devices from outside sources.

24. The broadcast network access-management system, according to claim 1, in which messages exchanged between the master decoding device (11), the slave decoding devices (12), and outside devices consist of synchronising bytes (300), a heading (301) with a source and a destination addresses (302, 303), a type (305) of message, a flag (304) with information as to whether the message contains data and the message (306) determining the size of the block of data, and also data (307) constituting the message (referred to as a payload), and a checksum (308).

25. A management method of receivers provided with smart cards and linked to a television broadcast network, among which at least one device is the master decoding device with at least one slave decoding device and an interlinked transmitter device which generates and transmits messages that allow to use the master and the slave decoding devices and receivers connected to them, the management method comprising the following steps:

installing the master decoding device (11) and at least one linked slave decoding device (12) at a defined distance from each other shorter than a defined nominal distance;

allowing the master decoding device (11) and the slave decoding device (12) to operate only if a distance between the master decoding device (11) and the slave decoding device (12) distance does not exceed the defined nominal distance dependant upon a cable length, a number, a configuration and a quality of splitters and links.

26. The management method, according to claim 25, characterized in that a decoding device is assigned the status of the master decoding device (11) only after it has been linked to a network and an entitlement control message for the master decoding device (11) has been found.

27. The management method, according to claim 25, characterized in that the master decoding device (11) imposes on the transmitter device a transmission of the entitlement control message appropriate for the master decoding device (11).

28. The management method, according to claim 25, characterized in that a decoding device is granted with a mode of the slave decoding device (12) only after it has been linked to a network and an entitlement control message for the slave decoding device (12) has been found.

29. The management method, according to claim 25, characterized in that the slave decoding device (12) imposes on the transmitter device a transmission of the entitlement control message appropriate for the slave decoding device (12).

30. The management method, according to claim 25, characterized in that the master decoding device (11) and the slave decoding device (12), when they are turned on, first check if any messages are being transmitted by other devices before they start to transmit messages.

31. The management method, according to claim 25, characterized in that the slave decoding device (12) triggers the master decoding device (11) to transmit the entitlement control message appropriate for the slave decoding device (12) and messages with demand for coupling.

32. The management method, according to claim 25, characterized in that a period of time for coupling the master decoding device (11) with the slave decoding device (12) is pre-set.

33. The management method, according to claim 25, characterized in that the defined distance between the master decoding device (11) and the slave decoding device (12) linked to it is determined from the level of a signal exchanged between the master decoding device (11) and the slave decoding device (12).

34. The management method, according to claim 25, characterized in that the level of the signal exchanged between the master decoding device (11) and the slave decoding device (12) is compared with the level of the signal sent between them during preceding communication.

35. The management method, according to claim 25, characterized in that decoding devices are assigned the status of the master decoding device (11) and the slave decoding device (12) after transmission of encoded messages by the transmitter device (3) generating and transmitting specified codes.

36. The management method, according to claim 25, characterized in that a private television network (13) shares physical linkages with a broadcast network (8).

37. The management method, according to claim 25, characterized in that the entitlement management messages, allowing the master decoding device (11) and at least one slave decoding device (12) an access to the broadcast network, are transmitted after the encoded messages are sent by the transmitter device (3) which is designed to generate and transmit specific codes.

38. The management method, according to claim 25, characterized in that management messages sent to the master decoding device (11) and the slave decoding devices (12) are generated by a generator (7) connected to a multiplexer (5) through another generator (6) which creates messages, and the management messages sent to the master (11) and the slave decoding devices (12) are included in the entitlement management message.

39. The management method, according to claim 25, characterized in that messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages used to identify the master decoding device (11) and the slave decoding devices (12, 15), systems that are their component parts, or external devices (267) linked to them.

40. The management method, according to claim 25, characterized in that the identifying messages include a type of the master decoding device (11) and the slave decoding devices (12, 15), their version and/or their serial number.

41. The management method, according to claim 25, characterized in that messages exchanged between the master decoding device (11) and the slave decoding devices (12, 15) are messages used to identify software.

42. The management method, according to claim 25, characterized in that the messages used to identify software include a version number and/or a serial number of the software.